

CHAPTER 2.1.1.

EPIZOOTIC HAEMATOPOIETIC NECROSIS

Article 2.1.1.1.

For the purposes of this *Aquatic Code*, the disease agents of epizootic haematopoietic necrosis (EHN) are: EHN virus (EHNv), European sheatfish virus (ESV) and European catfish virus (ECV).

Provisions for recognition of freedom from EHN means that the conditions as outlined below are met for all of the agents listed above.

Article 2.1.1.2.

Naturally susceptible species in which clinical signs of EHNv infection are known to develop are: redfin perch (*Perca fluviatilis*) and rainbow trout (*Oncorhynchus mykiss*).

Naturally susceptible species in which clinical signs of ESV infection are known to develop are: sheatfish (*Silurus glanis*).

Naturally susceptible species in which clinical signs of ECV infection are known to develop are: catfish (*Ictalurus melas*).

Article 2.1.1.3.

The disease agents listed in Article 2.1.1.1 can also cause asymptomatic infection in their respective susceptible species listed in Article 2.1.1.2.

Article 2.1.1.4.

Experimental EHNv infections have been reported in Macquarie perch (*Macquaria australasica*), silver perch (*Bidyanus bidyanus*), mountain galaxias (*Galaxias olidus*), and mosquito fish (*Gambusia affinis*) and other species belonging to the family Poeciliidae.

Article 2.1.1.5.

Suspect cases of natural infection with any of the agents listed in Article 2.1.1.1 in species other than those listed in Articles 2.1.1.2 and 2.1.1.3, should be referred immediately to the appropriate OIE Reference Laboratory, whether or not clinical signs are associated with the findings.

Article 2.1.1.6.

Methods for surveillance, diagnosis and confirmatory identification of the disease agents are provided in the *Aquatic Manual*.

EHN free country

Article 2.1.1.7.

A country may be recognised as free of EHN if it meets the conditions in Articles 2.1.1.8 or 2.1.1.9.

If a country shares a water catchment area with one or more other countries, it can only be declared an EHN free country if all the shared water catchment areas are declared free zones (see Article 2.1.1.10).

Article 2.1.1.8.

A country where none of the species listed in Articles 2.1.1.2 and 2.1.1.3 is present

OR

where there has never been any observed occurrence of the disease despite conditions that are conducive to its clinical expression

may be considered free from EHN when prescribed biosecurity conditions have been in place continuously in the country for at least the previous 2 years as follows:

- a) EHN is compulsorily notifiable to the Competent Authority, including notification of suspicion; and
- b) an early detection system is in place within the country enabling the Competent Authority to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant diseases, and training of veterinarians or fish health specialists in detecting and reporting unusual disease occurrence; and
- c) infection is not known to be established in wild populations; and
- d) conditions applied to imports to prevent the introduction of EHN into the country are in place (see Section 1.4).

Article 2.1.1.9.

A country where the last known occurrence was within the previous 25 years or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression, may be considered free from EHN when it meets the prescribed biosecurity conditions detailed in Article 2.1.1.8.

AND

targeted surveillance as described in chapters 1.4 and 2.1.1 in the Aquatic Manual has been in place for at least the past 2 years in aquaculture establishments holding any of the susceptible species listed in Articles 2.1.1.2 and 2.1.1.3 without detection of the disease agents listed in Article 2.1.1.1. If there are areas of the country in which there are no such aquaculture establishments but in which there are wild populations of any of the susceptible species listed in Articles 2.1.1.2 and 2.1.1.3, those populations must be included in the targeted surveillance.

EHN free zone

Article 2.1.1.10.

An EHN free zone may be established within the territory of one or more countries of infected or unknown status if the zone meets the conditions referred to in Articles 2.1.1.11 or 2.1.1.12. Such EHN free zones must comprise: one or more entire water catchment area(s) from the sources of the waterways to the sea, or part of a catchment area from the source(s) to a natural or artificial barrier that prevents the upward migration of fish from lower stretches of the waterway. Such zones must be clearly delineated on a map of the territory of the country(ies) concerned by the Competent Authority.

If a zone extends over more than one country, it can only be declared an EHN free zone if the conditions outlined below apply to all shared areas of the zone.

Article 2.1.1.11.

A zone where none of the species listed in Articles 2.1.1.2 and 2.1.1.3 is present

OR

where there has never been any observed occurrence of the disease despite conditions that are conducive to its clinical expression

may be considered free from EHN when prescribed biosecurity conditions have been in place continuously in the zone for at least the previous 2 years as follows:

- a) EHN is compulsorily notifiable to the Competent Authority, including notification of suspicion; and
- b) an early detection system is in place within the zone enabling the Competent Authority to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant diseases, and veterinarians or fish health specialists are trained in detecting and reporting unusual disease occurrence; and
- c) infection is not known to be established in wild populations; and
- d) official control measures to prevent the introduction of EHN into the zone are in place.

Article 2.1.1.12.

A zone where the last known occurrence was within the previous 25 years or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression, may be considered free from EHN when it meets the prescribed biosecurity conditions detailed in Article 2.1.1.11.

AND

targeted surveillance as described in chapters 1.4 and 2.1.1 in the Aquatic Manual has been in place for at least the past 2 years in aquaculture establishments holding any of the susceptible species listed in Articles 2.1.1.2 and 2.1.1.3 without detection of the disease agents listed in Article 2.1.1.1. If there are areas of the zone in which there are no such aquaculture establishments but in which there are wild populations of any of the susceptible species listed in Articles 2.1.1.2 and 2.1.1.3, those populations must be included in the targeted surveillance.

EHN free aquaculture establishment

Article 2.1.1.13.

An EHN free *aquaculture establishment* may be located within an EHN infected country or zone or within a country or zone of unknown status with respect to EHN if it meets the conditions referred to in Articles 2.1.1.14 or 2.1.1.15. Such EHN free *aquaculture establishments* must be supplied by a contained water source only (e.g. a spring, well, borehole, rain catchment, etc.) and be free from stocks of wild *fish* of the susceptible species listed in Articles 2.1.1.2 and 2.1.1.3, and there must be a natural or artificial barrier that prevents the migration of *fish* from lower stretches of the waterway into the *aquaculture establishment* or its water supply.

Article 2.1.1.14.

An *aquaculture establishment* where none of the species listed in Articles 2.1.1.2 and 2.1.1.3 is present

OR

where there has never been any observed occurrence of the disease despite conditions that are conducive to its clinical expression

may be considered free from EHN when *prescribed biosecurity conditions* have been in place continuously in the *aquaculture establishment* for at least the previous 2 years as follows:

- a) EHN is compulsorily notifiable to the *Competent Authority*, including notification of suspicion; and
- b) the *aquaculture establishment* complies with an early detection system enabling the *Competent Authority* to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant diseases, and the staff are trained in detecting and reporting unusual disease occurrence; and
- c) official control measures to prevent the introduction of EHN into the *aquaculture establishment* are in place.

Article 2.1.1.15.

An *aquaculture establishment* where the last known occurrence of EHN was within the previous 25 years, or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression, may be considered free from EHN when it meets the *prescribed biosecurity conditions* detailed in Article 2.1.1.14.

AND

targeted surveillance as described in chapters 1.4 and 2.1.1 in the *Aquatic Manual* has been in place for at least the past 2 years without detection of the disease agents listed in Article 2.1.1.1.

Article 2.1.1.16.

Maintenance of free status

A country, zone or *aquaculture establishment* that is recognised as free from EHN following the provisions of Articles 2.1.1.8, 2.1.1.11 and 2.1.1.14 may maintain its official status as EHN free provided that the *prescribed biosecurity conditions* are continuously maintained.

A country, zone or *aquaculture establishment* that is recognised free from EHN following the provisions of Articles 2.1.1.9, 2.1.1.12 and 2.1.1.15 may discontinue *targeted surveillance* and maintain its official

status as EHN free provided that conditions that are conducive to clinical expression of EHN exist and the *prescribed biosecurity conditions* are continuously maintained. In cases where conditions are not conducive to clinical expression of EHN, *targeted surveillance* will need to be continued, but at a level commensurate with the degree of risk assessed by the *Competent Authority*.

Article 2.1.1.17.

Suspension and restoration of free status

If a *Competent Authority* has reason to believe that any of the conditions for recognition of country, zone or *aquaculture establishment* freedom has been breached, it should immediately suspend the free status, implement any necessary containment measures and conduct an investigation.

If the investigation confirms that the suspected breach has not taken place, free status may be restored.

If the investigation confirms that the suspected breach has taken place, suspension of free status is continued. The *Competent Authority* should carry out an epizootiological investigation to determine the likelihood of disease entry and establishment and re-establish the conditions in Articles 2.1.1.7, 2.1.1.9, 2.1.1.10, 2.1.1.12, 2.1.1.13 and 2.1.1.15 if free status is to be restored. Steps leading to re-establishment of free status may require depopulation, *fallowing*, *disinfection* and other measures as described in chapter 1.6.

Article 2.1.1.18.

When importing live *fish* or their *sexual products*, the *Competent Authority* of the *importing country* should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country*.

This *certificate* must certify, on the basis of a surveillance scheme conducted according to the procedures described above and detailed in the *Aquatic Manual*, whether or not the place of production of the consignment is a country, zone or *aquaculture establishment* officially declared EHN free.

The certificate shall be in accordance with Model Certificate No. 1 given in Part 6 of this *Aquatic Code*.

Article 2.1.1.19.

If the *Competent Authority* of the *exporting country* cannot certify the place of production of the consignment as being free from EHN, the importing country should assess the *risks* associated with the importation of live *fish* or their *sexual products* prior to a decision on whether to authorise an importation.

Article 2.1.1.20.

When importing dead *fish* of the *susceptible species* listed in Articles 2.1.1.2 and 2.1.1.3 the *Competent Authority* of the *importing country* should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country*.

This *certificate* must certify, on the basis of a surveillance scheme conducted according to the procedures described above and detailed in the *Aquatic Manual*, whether or not the place of

production of the consignment is a country, zone or aquaculture establishment officially declared EHN free.

The certificate shall be in accordance with Model Certificate No. 2 given in Part 6 of this *Aquatic Code*.

Article 2.1.1.21.

If the *Competent Authority* of the *exporting country* cannot certify the place of production of the consignment as being free from EHN, the importing country should assess the *risks* associated with the importation of dead uneviscerated fish of the *susceptible species* listed in Articles 2.1.1.2 and 2.1.1.3 prior to a decision on whether to authorise an importation.

Article 2.1.1.22.

The *Competent Authorities* of *exporting countries* should not authorise the exportation of live *fish* from populations known to be infected with EHN without the full agreement of the *importing country*.